

## Louisville Metro Air Pollution Control District 701 West Ormsby Avenue, Suite 303 Louisville, Kentucky 40203-3137



## Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-1295-19-F Plant ID: 1295

Effective Date: 11/22/2019 Expiration Date: 11/30/2024

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: Indratech Owner: Indratech of Kentucky, LLC

2801 Constant Comment Place 2801 Constant Comment Place

Louisville, KY 40299 Louisville, KY 40299

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve months and no later than ninety days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant: VOC PM/PM<sub>10</sub> Tons/year: < 25 < 25

Application No.: See **Application and Related Documents** table.

Public Notice Date: 10/17/2019

Permit writer: Shannon Hosey

Air Pollution Control Officer 11/22/2019

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# **Permit Revisions and Changes**

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
411-05-F	05/14/2007	06/30/2007	Initial	Initial Permit Issuance
411-05-F (R1)	07/03/2014	08/06/2014	Renewal	411-05-F Renewal and incorporation of construction permits 184-07-C and 72-10-C
O-1295-19-F	10/17/2019	11/22/2019	Renewal	Permit Renewal

# **Application and Related Documents**

Document Number	Date	Description
98602	06/04/2019	Application Renewal

#### **Abbreviations and Acronyms**

AP-42 - AP-42, Compilation of Air Pollutant Emission Factors, published by U.S.EPA

APCD - Louisville Metro Air Pollution Control District

BAC - Benchmark Ambient ConcentrationBACT - Best Available Control Technology

Btu - British thermal unit

CEMS - Continuous Emission Monitoring System

CFR - Code of Federal Regulations

CO - Carbon monoxide

District - Louisville Metro Air Pollution Control District

EA - Environmental Acceptability

gal - U.S. fluid gallons GHG - Greenhouse Gas

HAP - Hazardous Air Pollutant

Hg - Mercury
hr - Hour
in. - Inches
lbs - Pounds
l - Liter

LMAPCD - Louisville Metro Air Pollution Control District

mmHg - Millimeters of mercury column height

MM - Million

(M)SDS - (Material) Safety Data Sheet

NAICS - North American Industry Classification System

NO<sub>x</sub> - Nitrogen oxides PM - Particulate Matter

PM<sub>10</sub> - Particulate Matter less than 10 microns PM<sub>2.5</sub> - Particulate Matter less than 2.5 microns

ppm - parts per million

PSD - Prevention of Significant Deterioration

psia - Pounds per square inch absolute

QA - Quality Assurance

RACT - Reasonably Available Control Technology

SIC - Standard Industrial Classification

SIP - State Implementation Plan

SO<sub>2</sub> - Sulfur dioxide

STAR - Strategic Toxic Air Reduction

TAC - Toxic Air Contaminant

UTM - Universal Transverse MercatorVOC - Volatile Organic Compound

w.c. - Water column

year - Any period of twelve consecutive months, unless "calendar year" is specified

yr - Year, or any 12 consecutive-month period, as determined by context

#### Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

#### **General Conditions**

- G1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
- G2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
- G3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.
- G4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.
- G5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
- G6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

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- G7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
- G8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.
- G9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.
- G10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM<sub>10</sub>, PM<sub>2.5</sub>, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.
- G11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All compliance reports shall include the following per Regulation 2.17, section 3.5.
  - A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
  - The signature and title of a responsible official of the company.
  - The annual report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

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G13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.06	Permit Requirements – Other Sources
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

G14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.17	Federally Enforceable District Origin Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

- G15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
- G16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
- G17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

Air Pollution Control District 701 W. Ormsby Avenue, Suite 303 Louisville, Kentucky 40203-3137 Plant ID: 1295 Plantwide Requirements

## **Plantwide Requirements**

## **Facility Description**

Manufactures non-woven textile matting for automotive and acoustical applications

## **Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS			
Regulation	Regulation Title Applicable Sections		
2.17	Federally Enforceable District Origin Operating Permits	All	

DISTRICT ONLY ENFORCEABLE REGULATIONS			
Regulation	on Title Applicable Sections		
5.00	Definitions	1, 2	

Plant ID: 1295 Plantwide Requirements

### **Plantwide Specific Conditions**

#### S1. Standards

[Regulation 2.17, section 5.1]

#### a. **PM/PM**<sub>10</sub>

The owner or operator shall not cause or allow the plantwide PM/PM10 emissions to equal or exceed 25 tons during any consecutive 12-month period. [Regulation 5.00, section 1.13.5.1]

#### b. VOC

The owner or operator shall not allow plantwide VOC emissions to equal or exceed 25 tons during any consecutive 12-month period. [Regulation 5.00, section 1.13.5.1]

### S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

### a. PM/PM<sub>10</sub>

The owner or operator shall, monthly, calculate and record the monthly and 12-consecutive month plantwide total emissions for PM/PM<sub>10</sub>, for each month in the reporting period.

#### b. VOC

The owner or operator shall, monthly, calculate and record the monthly and 12-consecutive month plantwide total emissions for VOC for each month in the reporting period.

### S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

### a. **PM/PM**<sub>10</sub>

The owner or operator shall report the plantwide monthly and 12-consecutive month total emissions for PM/PM<sub>10</sub> for each month in the reporting period.

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 $<sup>^{1}</sup>$  On 05/12/14, Indratech requested the limits of the criteria pollutant VOC < 25 tpy, and PM/PM $_{10}$  < 25 tpy to qualify as a FEDOOP source exempt from STAR, as defined by Regulation 5.00, section 1.13.5.

Plant ID: 1295 Plantwide Requirements

## b. VOC

The owner or operator shall report the plantwide monthly and 12-consecutive month total emissions for VOC for each month in the reporting period.

## Emission Unit U1/U2: AVM Production Line I and Production Line II

## **Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS			
Regulation	Title Applicable Sections		
7.08	Standards of Performance for New Process Operations	1, 2, 3	
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	1 through 5	

## **Equipment**

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID	
Emission U	Emission Unit U1, AVM Production Line I, 3500 lb/hr					
U1-E1	Bale Opener	1998	7.08	U1-C1	NA	
U1-E2	Bale Opener	1998	7.08	U1-C1	NA	
U1-E3	Bale Opener	1998	7.08	U1-C1	NA	
U1-E4	Bale Opener	1998	7.08	U1-C1	NA	
U1-E5	Bale Opener	1998	7.08	U1-C1	NA	
U1-E6	Regrind Mill	1998	7.08	U1-C1	NA	
U1-E7	Receiver/Separator	1998	7.08	U1-C1	NA	
U1-E8	Sheet Former	1998	7.08	U1-C1	NA	
U1-E9	Sheet Former	1998	7.08	U1-C1	NA	
U1-E10	Edge Trimmer	1998	7.08	U1-C1	NA	
U1-E11	Edge Trimmer	1998	7.08	U1-C1	NA	
U1-E12	Fiber Conveyor System	1998	7.08	U1-C1	NA	
U1-E13	Oven	1998	7.25	NA	U1-S1	
U1-E14	Cooler	1998	7.25	NA	NA	
U1-E15	Laminator	1998	7.25	NA	NA	

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
U1-E16	Winding Machine	1998	NA <sup>2</sup>	NA	NA
Emission U	nit U1, AVM Production Line II, 6500	lb/hr			
U2-E1	Bale Opener	2003	7.08	U2-C2	NA
U2-E2	Bale Opener	2003	7.08	U2-C2	NA
U2-E3	Bale Opener	2003	7.08	U2-C2	NA
U2-E4	Bale Opener	2003	7.08	U2-C1	NA
U2-E5	Bale Opener	2003	7.08	U2-C2	NA
U2-E6	Regrind Mill	2003	7.08	U2-C2	NA
U2-E7	Receiver/Separator	2003	7.08	U2-C2	NA
U2-E8	Sheet Former	2003	7.08	U2-C2	NA
U2-E9	Sheet Former	2003	7.08	U2-C2	NA
U2-E10	Edge Trimmer	2003	7.08	U2-C2	NA
U2-E11	Edge Trimmer	2003	7.08	U2-C2	NA
U2-E12	Fiber Conveyor System	2003	7.08	U2-C2	NA
U2-E13	Oven	2003	7.25	NA	U1-S1
U2-E14	Cooler	2003	7.25	NA	NA
U2-E15	Laminator	2003	7.25	NA	NA
U2-E16	Winding Machine	2003	NA <sup>3</sup>	NA	NA

## **Control Devices**

Control ID	Description	Control Efficiency
U1-C1	Baghouse, Torit	95%
U2-C2	Rotary Screen Fabric Filter	95%

<sup>&</sup>lt;sup>2</sup> There are no emissions from this equipment. <sup>3</sup> There are no emissions from this equipment.

### **U1/U2 Specific Conditions**

#### S1. Standards

[Regulation 2.17, section 5.1]

### a. Opacity

The owner or operator shall not allow or cause visible emissions to equal or exceed 20% opacity. [Regulation 7.08, section 3.1.1]

#### b. PM/PM<sub>10</sub>

- i. See Plantwide PM/PM<sub>10</sub> Standards.
- ii. For AVM production Line I, the owner or operator shall not cause or allow PM emissions to exceed the limits listed in Table A based on a maximum allowable production rate of 3,500 pounds per hour.<sup>4,5</sup> [Regulation 7.08, section 3.1.2]

**Table A – Regulation 7.08 Limits** 

<b>Emission Process</b>	Description	Limit (lb/hr)
U1-E1	Bale Opener	5.08
U1-E2	Bale Opener	5.08
U1-E3	Bale Opener	5.08
U1-E4	Bale Opener	5.08
U1-E5	Bale Opener	5.08
U1-E6	Regrind Mill	5.08
U1-E7	Receiver/Separator	5.08
U1-E8	Sheet Former	5.08
U1-E9	Sheet Former	5.08
U1-E10	Edge Trimmer	5.08
U1-E11	Hammer Mill	5.08
U1-E12	Fiber Conveyor System	5.08

iii. For AVM production Line II, the owner or operator shall not cause or allow PM emissions to exceed the limits listed in Table B based on a maximum allowable production rate of 6,500 pounds per hour.<sup>6</sup> [Regulation 7.08, section 3.1.2]

<sup>&</sup>lt;sup>4</sup> The potential uncontrolled hourly PM emissions from AVM production Line I, Emission Points U1-E1, U1-E2, U1-E3, U1-E4, U1-E5, U1-E6, U1-E7, U1-E8, and U1-E9 cannot exceed the emission standard.

<sup>&</sup>lt;sup>5</sup> The potential controlled hourly PM emissions from AVM Production Line I, Emission Points U1-E10, U1-E11, and U1-E12 cannot exceed the emission standard.

<sup>&</sup>lt;sup>6</sup> The potential controlled hourly PM emissions from AVM Production Line II cannot exceed the emission standard.

<b>Emission Process</b>	Description	Limit (lb/hr)
U2-E1	Bale Opener	7.46
U2-E2	Bale Opener	7.46
U2-E3	Bale Opener	7.46
U2-E4	Bale Opener	7.46
U2-E5	Bale Opener	7.46
U2-E6	Regrind Mill	7.46
U2-E7	Receiver/Separator	7.46
U2-E8	Sheet Former	7.46
U2-E9	Sheet Former	7.46
U2-E10	Edge Trimmer	7.46
U2-E11	Hammer Mill	7.46
U2-E12	Fiber Conveyor System	7.46

**Table B – Regulation 7.08 Limits** 

iv. The owner or operator shall operate and maintain the associated control devices at all times that the process equipment is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice for minimizing emissions.

#### c. VOC

- i. See Plantwide VOC Standards.
- ii. For Emission Points U1-E13, U1-E14, U1-E15, U2-E15, and U3-E1, the owner or operator shall limit the plantwide total VOC emissions to less than 5 tons per 12 consecutive months, unless a BACT is submitted and approved by the District. [Regulation 7.25, Section 3]
- iii. For Emission Points U2-E13 and U2-E14, the owner or operator shall not allow or cause the VOC emissions to exceed 9.94 tons during any consecutive 12-month period.<sup>7</sup> [Regulation 7.25, Section 3]

### S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

### a. Opacity

There are no compliance monitoring and record keeping requirements for this equipment.

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<sup>&</sup>lt;sup>7</sup> The AVM Production Line II is subject to a VOC Best Available Control Technology (BACT) limit of 9.94 tons per year in accordance with District Regulation 7.25 (BACT submitted on April 21, 2003). The VOC emission factor is 1.38 lb VOC/ton of polyester fiber processed.

#### **b. PM/PM**<sub>10</sub>

- i. See Plantwide PM/PM<sub>10</sub> Monitoring and Record Keeping
- ii. For Emission Points U1-E10, U1-E11, U1-E12 from the AVM Production Line I and Emission Points U2-E1, U2-E2, U2-E3, U2-E4, U2-E5, U2-E6, U2-E7, U2-E8, U2-E9, U2-E10, U2-E11, and U2-E12 from AVM Production Line II, the owner or operator shall maintain records monthly of the type (e.g. polyester, textile glass, etc.) of fiber and the quantity (in tons) of final product manufactured during each calendar month and consecutive 12-month period. The records shall include the weight of each bale of polyester, polypropylene or textile glass fiber as indicated by the weight tag on each bale of fiber as received.
- iii. For Emission Points U1-E10, U1-E11, U1-E12 from the AVM Production Line I and Emission Points U2-E1, U2-E2, U2-E3, U2-E4, U2-E5, U2-E6, U2-E7, U2-E8, U2-E9, U2-E10, U2-E11, and U2-E12 from AVM Production Line II, the owner or operator shall maintain daily records of any periods when a process was operating and an associated control device was not operating, or a declaration that the control device operated at all times that day when the process was operating. For each period when the control was not operating or was bypassed, the record must include:
  - (1) Date;
  - (2) Start time and stop time;
  - (3) Identification of the control device and process equipment;
  - (4) PM emissions during the event, in lb/hr;
  - (5) Summary of the cause or reason for each event;
  - (6) Corrective action taken to minimize the extent or duration of the event; and
  - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

### c. VOC

- i. See Plantwide VOC Monitoring and Record Keeping
- ii. The owner or operator shall monitor and maintain records monthly of the type (e.g. polyester, polyester/textile glass, etc.) and quantity (in tons) of fibers used to manufacture insulation products during each calendar month and consecutive 12-month period. [Regulation 5.00, section 1.13.5]
- iii. For Emission Points U1-E13, U1-E14, U1-E15, U2-E15, and U3-E1, the owner or operator shall maintain records monthly, including calculations, which show the calendar month and the consecutive 12- month total VOC

emissions.

iv. For Emission Points U2-E13 and U2-E14, the owner or operator shall maintain records monthly, including calculations, which show the calendar month and the consecutive 12- month total VOC emissions.

### S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

### a. Opacity

There are no compliance reporting requirements for this equipment.

#### b. PM/PM<sub>10</sub>

- i. See Plantwide PM/PM<sub>10</sub> Reporting
- ii. For Emission Points U1-E10, U1-E11, U1-E12 from the AVM Production Line I and Emission Points U2-E1, U2-E2, U2-E3, U2-E4, U2-E5, U2-E6, U2-E7, U2-E8, U2-E9, U2-E10, U2-E11, and U2-E12 from AVM Production Line II, the owner or operator shall maintain daily records of any periods when a process was operating and an associated control device was not operating, or a declaration that the control device operated at all times that day when the process was operating. For each period when the control was not operating or was bypassed, the record must include:
  - (1) Date;
  - (2) Start time and stop time;
  - (3) Identification of the control device and process equipment;
  - (4) PM emissions during the event, in lb/hr;
  - (5) Summary of the cause or reason for each event;
  - (6) Corrective action taken to minimize the extent or duration of the event; and
  - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

#### c. VOC

- i. See Plantwide VOC Reporting
- ii. For Emission Points U1-E13, U1-E14, U1-E15, U2-E15, and U3-E1, the owner or operator shall report the calendar month and consecutive 12-

- month VOC emissions for each month in the reporting period.
- iii. For Emission Points U2-E13 and U2-E14, the owner or operator shall report the calendar month and consecutive 12-month VOC emissions for each month in the reporting period.

Plant ID: 1295 U3 – Gluing Operation

# Emission Unit U3: Gluing Operation

## **Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	lation Title Applicable Section	
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3

# **Equipment**

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
U3-E1 (IA)	Off-line Glue Machine	2003	7.25	NA	NA

Plant ID: 1295 U3 – Gluing Operation

#### **U3 Specific Conditions**

### S1. Standards

[Regulation 2.17, section 5.1]

#### a. VOC

- i. See Plantwide VOC Standards
- ii. For Emission Points U1-E13, U1-E14, U1-E15, U2-E15, and U3-E1, the owner or operator shall limit the plantwide total VOC emissions to less than 5 tons per 12 consecutive months, unless a BACT is submitted and approved by the District. [Regulation 7.25, Section 3]

### S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

#### a. VOC

- i. See Plantwide VOC Monitoring and Record Keeping
- ii. For Emission Points U1-E13, U1-E14, U1-E15, U2-E15, and U3-E1, the owner or operator shall maintain records monthly, including calculations, which show the calendar month and the consecutive 12- month total VOC emissions.

### S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

### a. VOC

- i. See Plantwide VOC Reporting
- ii. For Emission Points U1-E13, U1-E14, U1-E15, U2-E15, and U3-E1, the owner or operator shall report the calendar month and consecutive 12-month VOC emissions for each month in the reporting period.

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# Emission Unit U4: Auxiliary Production Equipment

## **Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation Title Applicable Section		Applicable Sections
7.08	Standards of Performance for New Process Operations 1, 2, 3	

# **Equipment**

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
U4-E1	Die Cut Stamping Press	2007	7.08	NA	NA
U4-E2	Die Cut Stamping Press	2007	7.08	NA	NA
U4-E3	Die Cut Stamping Press	2007	7.08	NA	NA
U4-E4	Grinder/Baler, with integrated control	2010	7.08	NA	NA
U4-E5	Grinder/Baler, with integrated control	2010	7.08	NA	NA

#### **U4 Specific Conditions**

#### S1. Standards

[Regulation 2.17, section 5.1]

### a. Opacity

The owner or operator shall not allow or cause visible emissions to equal or exceed 20% opacity. [Regulation 7.08, section 3.1.1]

#### b. **PM/PM**<sub>10</sub>

- i. See Plantwide PM/PM<sub>10</sub> Standards
- ii. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr per piece of equipment based on actual operating hours in a calendar day.<sup>8</sup> [Regulation 7.08, section 3.1.2]

### S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

### a. Opacity

There are no compliance monitoring and record keeping requirements for this equipment.

#### b. PM/PM

See Plantwide PM/PM<sub>10</sub> Monitoring and Record Keeping.

#### S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

#### a. Opacity

There are no compliance reporting requirements for this equipment.

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<sup>&</sup>lt;sup>8</sup> The potential uncontrolled hourly PM emissions from Emission Points U4-E1, U4-E2, U4-E3, U4-E4, and U4-E5 cannot exceed the emission standard.

## b. **PM/PM**<sub>10</sub>

See Plantwide PM/PM<sub>10</sub> Reporting.

## Attachment A - Default Emission Factors, Calculation Methodologies, & Stack Tests

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and accounting for any control devices unless otherwise approved in writing by the District.

**Table 1-U1/U2** 

Emission Point	Description	Emission Factor/Calculation Methodology
U1-E1	Bale Opener	
U1-E2	Bale Opener	
U1-E3	Bale Opener	
U1-E4	Bale Opener	Based on collector clean out information history of 1 lb/hr of fibers collected at 850
U1-E5	Bale Opener	lb/hr of operation and 95% control
U1-E6	Regrind Mill	$PM/PM_{10} = 0.12 lb/ton fiber$
U1-E7	Receiver/Separator	
U1-E8	Sheet Former	
U1-E9	Sheet Former	
U1-E10	Edge Trimmer	Based on collection drum studies of 34 lb/hr of fibers exhausted at 5,000 lb/hr of
U1-E11	Edge Trimmer	operation and 95% control
U1-E12	Fiber Conveyor System	$PM/PM_{10} = 0.68 lb/ton fiber$
U1-E13	Oven	Based on 0.069 wt% organic fiber content all assumed to liberate 100% as VOC and
U1-E14	Cooler	AP-42 natural gas emission factor.  VOC = 1.38 lb/ton fiber
U1-E15	Laminator	Production rate times maximum content in adhesive used on the non-woven facer mat
U1-E16	Winding Machine	NA
U2-E1	Bale Opener	Based on collector clean out information
U2-E2	Bale Opener	history of 1 lb/hr of fibers collected at 850
U2-E3	Bale Opener	lb/hr of operation and 95% control
U2-E4	Bale Opener	$PM/PM_{10} = 0.12 \text{ lb/ton fiber}$

Emission Point	Description	Emission Factor/Calculation Methodology	
U2-E5	Bale Opener		
U2-E6	Regrind Mill	Based on collector clean out information	
U2-E7	Receiver/Separator	history of 1 lb/hr of fibers collected at 850 lb/hr of operation and 95% control	
U2-E8	Sheet Former	$PM/PM_{10} = 0.12 lb/ton fiber$	
U2-E9	Sheet Former		
U2-E10	Edge Trimmer	Based on collection drum studies of 34 lb/hr of fibers exhausted at 5,000 lb/hr of	
U2-E11	Edge Trimmer	operation and 95% control	
U2-E12	Fiber Conveyor System	PM/PM <sub>10</sub> = 0.68 lb/ton fiber	
U2-E13	Oven	Based on 0.069 wt% organic fiber content all assumed to liberate 100% as VOC and	
U2-E14	Cooler	AP-42 natural gas emission factor.  VOC = 1.38 lb/ton fiber	
U2-E15	Laminator	Production rate times maximum content in adhesive used on the non-woven facer mat	
U2-E16	Winding Machine	NA	

## Table 1-U3

Emission Point	Description	Emission Factor/Calculation Methodology
U3-E1 (IA)	Off-line Glue Machine	Production rate times 0.1% loss based on testing of EVA glue weight loss

## Table 1-U4

Emission Point	Description	Emission Factor/Calculation Methodology
U4-E1	Die Cut Stamping Press	(Production rate) x (Linear Feet of Blade per Die) x (Die Cut Blade Width) x
U4-E2	Die Cut Stamping Press	(Material Density)
U4-E3	Die Cut Stamping Press	PM Emission Factor: 0.1% loss
U4-E4	Grinder/Baler, with integrated control	PM loss for Grinders: 0.1% loss
U4-E5	Grinder/Baler, with integrated control	PM loss for Balers: 0.01% loss